



PN01-0335-1-8

Portable Isotopic Neutron Spectroscopy

Problem

The INEEL's Environmental Legacy Compliance project needed to characterize contents of two out-of-service tanks prior to remediation and disposal.

Baseline Technology

Intrusive sampling and off-site analysis of tank contents.

Innovative Technology

The Portable Isotopic Neutron Spectroscopy system shoots a neutron beam through tank walls and identifies tank contents by analyzing their characteristic gamma-ray signatures.

Comparison

This system enabled rapid identification of tank contents without retrieving samples and performing off-site analysis.

Benefits

This system enabled the project to rapidly evaluate the presence of hazardous contents in the tanks, accelerate project schedule, and enhance worker safety.

